Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for displaying hierarchically linked information, said hierarchically linked information comprised of a plurality of nodes each having one or more links to other of said plurality of nodes, said method comprising the steps of:

a) dynamically identifying a focus node for any of said plurality of nodes;

b) generating a degree of interest (DOI) value for each of said plurality of nodes, said degree of interest value relative to said focus node and sibling order distance from the focus node order and corresponding to a node size;

c) laying out said plurality of nodes positioned based on associated links and sized based on associated degree of interest values in a tree structure;

d) identifying and performing any node compression necessary for boundingedly displaying said hierarchically linked information based on the layout of said plurality of nodes; and

e) displaying said hierarchically linked information based on the layout of said plurality of nodes and node compression on a display area.

2.   (Previously Presented) The method as recited in claim 1 further comprising the step of:

f) detecting that a user has selected a second focus node;

g) generating a second degree of interest value for each of said plurality of nodes relative to said second focus node;

h) repeating steps c)-e) using said second degree of interest value for each of said plurality of nodes.

3.   (Currently Amended) A method for displaying hierarchically linked information, said hierarchically linked information comprised of a plurality of nodes each having one or more links to other of said plurality of nodes, said method comprising the steps of:

a)   dynamically identifying a focus node for any of said plurality of nodes;

b)   generating a degree of interest (DOI) value for each of said plurality of nodes, said degree of interest value relative to said focus node and sibling node order and corresponding to a node size; and ~~The method as recited in claim 1 wherein said step of generating a degree of interest (DOI) value for each of said nodes is further~~ comprising ~~comprised of~~ the steps of:

    b1) assigning a DOI value of 0 to the focus node and any parent node up to a root of the tree structure;

    b2) assigning a DOI value of 0 to most interesting child node at user defined number of levels below focus node;

    b3) assigning a DOI value of -1 to siblings of nodes with value 0; and

b4) assigning a DOI value of one less than the parent node for all the rest of the nodes~~.~~; and

c)   laying out said plurality of nodes positioned based on associated links and sized based on associated degree of interest values in a tree structure;

d)   identifying and performing any node compression necessary for boundedly displaying said hierarchically linked information based on the layout of said plurality of nodes; and

e)   displaying said hierarchically linked information based on the layout of said plurality of nodes and node compression on a display area.

4.   (Currently Amended) A method for displaying hierarchically linked information, said hierarchically linked information comprised of a plurality of nodes each having one or more links to other of said plurality of nodes, said method comprising the steps of:

a)   dynamically identifying a focus node for any of said plurality of nodes;

b)   generating a degree of interest (DOI) value for each of said plurality of nodes, said degree of interest value relative to said focus node and sibling order distance from the focus node order and corresponding to a node size; and ~~The method as recited in claim 1 wherein said step of generating a degree of interest (DOI) value for each of said nodes is further~~ comprising ~~comprised of~~ the steps of:

b1) assigning a DOI value of -1 to all selected nodes;

b2) assigning a DOI value of -1 to the any parent node of selected nodes up to the root of the tree structure; and

b3) assigning a DOI value of one less than the parent node for all the rest of the nodes; and.

c)   laying out said plurality of nodes positioned based on associated links and sized based on associated degree of interest values in a tree structure;

d)   identifying and performing any node compression necessary for boundedly displaying said hierarchically linked information based on the layout of said plurality of nodes; and

e)   displaying said hierarchically linked information based on the layout of said plurality of nodes and node compression on a display area.

5.   (Previously Presented) The method as recited in claim 1 wherein said step of laying out said plurality of nodes positioned based on associated links and sized based on associated degree of interest values in a tree structure is further comprised of the steps of

c1)   determining if said structure will fit vertically into said display area;

c2)   if said layout does not fit into said display area, reducing node spacing and/or sizes proportionally until node-link structure fits in said display area.

6.   (Previously Presented) The method as recited in claim 1 wherein said step of identifying and performing any node compression necessary for displaying said linked information based on the layout of said plurality of nodes is further comprised of the steps of:

d1)   determining from said layout that said nodes will not fit horizontally into said display area; and

d2)   causing nodes at the edges of the display area to be overlapped.

7.   (Previously Presented) The method as recited in claim 1 wherein said step of identifying and performing any node compression necessary for displaying said linked information based on the layout of said plurality of nodes is further comprised of the step of:

d1)   determining from said layout that said nodes will not fit horizontally into said display area because certain levels are too wide; and

d2)   causing sibling nodes at wide levels to be folded into multiple rows in the display area.

8.   (Previously Presented) The method as recited in claim 1 wherein said step of identifying and performing any node compression necessary for displaying said linked information based on the layout of said plurality of nodes is further comprised of the step of:

d1)   determining from said layout that said nodes will not fit vertically into said display area;

d2)   identifying subtrees in said layout causing said layout not to fit in said display area;

d3)   causing said subtrees to be displayed in a manner proportionate to the size of the subtree.

9.   (Previously Presented) The method as recited in claim 1 wherein prior to step e) performing the steps of:

determining that there is unused display area for said structure;

identifying most interesting nodes for utilizing said unused display area; and

generating new degree of interest values for said identified most interesting nodes and their linked decedent nodes.

10.   (Previously Presented) The method as recited in claim 1 wherein said step of displaying said linked information is further comprised of the step of displaying a first set of data items associated with said nodes.

11.   (Previously Presented) The method as recited in claim 10 further comprising the step of:

detecting that a user has requested that a second set of data items associated with said nodes be displayed; and

displaying said second set of data items associated with said nodes.

12.   (Previously Presented) The method as recited in claim 11 wherein said nodes are displayed to appear as three-dimensional objects having a plurality of display surfaces and said step of displaying said second set of data items associated with said nodes is comprised of the step of animating movement of said node to display a second surface of said node having said second set of data items.

13.   (Currently Amended) System for browsing a collection of hierarchically linked data comprising:

display means having a display area for presenting views of a visualization of said collection of hierarchically linked data;

input device for providing input to change view of said visualization of said collection of linked data based on dynamically selected linked data; and

visualization processing element coupled to said display means and said input device, said visualization for creating a bounded tree structure visualization of said collection of hierarchically linked data based on a Degree of Interest relative to said focus node and sibling order distance from the focus node order and a size of said display area.

14.   (Previously Presented) The system as recited in claim 13 wherein said visualization processing element is further comprised of:

a Degree of Interest (DOI) calculation element;

a node layout element; and

a node compression element.

15.   (Previously Presented) The system as recited in claim 14 wherein said visualization processing element is further comprised of a node expansion element.

16.   (Currently Amended) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform method steps for displaying hierarchically linked information, said hierarchically linked information comprised of a plurality of nodes each having one or more links to other of said plurality of nodes, said method comprising the steps of:

a) dynamically identifying a focus node for any of said plurality of nodes;

b) generating a degree of interest (DOI) value for each of said plurality of nodes, said degree of interest value relative to said focus node and sibling order distance from the focus node order and corresponding to a node size;

c) laying out said plurality of nodes positioned based on associated links and sized based on associated degree of interest values in a tree structure;

d) identifying and performing any node compression necessary for boundedingly displaying said hierarchically linked information based on the layout of said plurality of nodes; and

e) displaying said hierarchically linked information based on the layout of said plurality of nodes and node compression on a display area.

17.   (Currently Amended) The method of claim 1, in which generating a degree of interest value comprises of the steps of:

determining a degree of interest based on distance to the focus node; and

determining a fractional degree of interest adjustment for the degree of interest based on the sibling order distance between sibling from the focus nodes.

18.   (Previously Presented)   The method of claim 17, in which determining the fractional degree of interest adjustment is based on

at least one of: reducing and increasing the fractional degree of interest adjustment.

19.   (Previously Presented)   The method of claim 18, in which the fractional degree of interest is less than 1.

20.   (Previously Presented) The method of claim 17, in which degree of interest for child nodes of a sibling node are based on the degree of interest for the sibling node.

21.   (Currently Amended) The method of claim 1, further ~~A method of dynamically displaying hierarchically linked information~~ comprising the steps of:

determining one or more sets of nodes from the ~~a~~ plurality of linked nodes, the nodes in each set ~~each node~~ associated with a plurality of faces;

associating groups of related display items to successive faces of the one or more sets of nodes from the plurality of linked nodes; and

rotating all of the ~~plurality of~~ nodes in each set simultaneously based on a user input.

22.   (Previously Presented) The method of claim 21, in which display items in each group are related.

23.   (Previously Presented) The method of claim 21, in which the user input is at least one of: a gesture, a mouse input and a voice input.

24.   (Previously Presented)   The method of claim 21, in which the display is at least one of: a two dimensional display and a three dimensional display.

25.   (Currently Amended)   A method for displaying hierarchically linked information, said hierarchically linked information comprised of a plurality of nodes each having one or more links to other of said plurality of nodes, said method comprising the steps of:

a)   dynamically identifying a focus node for any of said plurality of nodes;

b)   generating a degree of interest (DOI) value for each of said plurality of nodes, said degree of interest value relative to said focus node and sibling order distance from the focus node order and corresponding to a node size;

c)   laying out said plurality of nodes positioned based on associated links and sized based on associated degree of interest values in a tree structure;

d)   identifying and performing any node compression necessary for boundingedly displaying said hierarchically linked information based on the layout of said plurality of nodes; and

e)   displaying said hierarchically linked information based on the layout of said plurality of nodes and node compression on a display area; ~~The method of claim 1, further comprising the steps of:~~

allocating space for the focus node, parents of the focus node and siblings of the focus node in order to the right and left of the focus

node until a first percentage of the horizontal partition of the display space remains; and

horizontally compressing the subtrees associated with a sibling node to fit below the sibling node.

26.   (Currently Amended)   A method for displaying hierarchically linked information, said hierarchically linked information comprised of a plurality of nodes each having one or more links to other of said plurality of nodes, said method comprising the steps of:

a)   dynamically identifying a focus node for any of said plurality of nodes;

b)   generating a degree of interest (DOI) value for each of said plurality of nodes, said degree of interest value relative to said focus node and sibling order distance from the focus node order and corresponding to a node size;

c)   laying out said plurality of nodes positioned based on associated links and sized based on associated degree of interest values in a tree structure;

d)   identifying and performing any node compression necessary for boundingedly displaying said hierarchically linked information based on the layout of said plurality of nodes; and

e)   displaying said hierarchically linked information based on the layout of said plurality of nodes and node compression on a display area; and wherein ~~The method of claim 1, further comprising the steps of:~~

for large numbers of nodes to be displayed in a first direction of the display area;

determining a regular free layout zone, at least one compression zone and at least one aggreagation zone in the first direction of the display area; and

allocating a large percentage of the display space to the regular free layout zone, a smaller percentage of the display area to the at least one compression zone and the smallest percentage to the at least one aggregation zone in the first direction.

27. (Previously Presented)   The method of claim 26, further comprising the step of displaying proportionately representative and proportionately selectable display elements in the aggregation zone.

28. (Currently Amended)   The method of claim 1, further ~~A method of dynamically displaying hierarchically linked information~~ comprising the steps of:

~~determining a plurality of linked nodes, each node~~ associat~~ing~~ed each node with prioritized hierarchically linked information; and

selectively displaying hierarchically linked information for a node based on the node size and the priority of the hierarchically linked information.

29. (Currently Amended)   The method of claim 1, further ~~A method of dynamically displaying hierarchically linked information~~ comprising the steps of:

~~determining a plurality of linked nodes, each node~~ associat~~ing~~ed each node with hierarchically linked information; and

selectively transforming the hierarchically linked information associated with a node based on the size of the node.

30.   (Previously Presented)   The method of claim 29, in which transforming the hierarchically linked information for a node is based on least one of: deleting less salient hierarchically linked information; selectively abbreviating a portion of the hierarchically linked information.

31.   (Currently Amended)   A method for displaying hierarchically linked information, said hierarchically linked information comprised of a plurality of nodes each having one or more links to other of said plurality of nodes, said method comprising the steps of:

dynamically identifying at least two focus nodes from any of said plurality of nodes;

generating a degree of interest (DOI) value for each of said plurality of nodes, said degree of interest value relative to the at least two focus nodes and to the <u>sibling order distance from the</u> ~~node order of the siblings of the~~ at least two focus nodes and corresponding to a node size;

laying out said plurality of nodes positioned based on associated links and sized based on associated degree of interest values in a tree structure;

identifying and performing any node compression necessary for boundedingly displaying said hierarchically linked information based on the layout of said plurality of nodes; and

displaying said hierarchically linked information based on the layout of said plurality of nodes and node compression on a display area.